

# HOW TO...

## Make a photo cube

If one photograph on its own simply isn't enough, there's no need to be square. Adam Banks explains how you can use Photoshop Elements to add another dimension to your favourite snaps

A photo cube is a practical and attractive way to display several favourite pictures. We'll show you how to make one you can print and construct in a few minutes. Once you've created your template, you can make as many cubes as you like. We'll also show you how to add a shiny surface effect to the photos so they look as if they're behind glass. This cube is designed to sit on a desk or shelf, with photos on the five visible sides.

We used Adobe Photoshop Elements 5, because it has all the features needed to make our task as straightforward as possible. You can follow the same steps in version 4, and you should be able to use the same basic approach with other good image editors; refer to the onscreen help to find the equivalent commands if necessary. If vector shapes aren't supported by your software, you can create each face by making a selection with the rectangular marquee (selection) tool and copying your chosen photo straight into it using the Paste Into command, or equivalent. You can use the same method if layer groups aren't supported; however, you can't easily reposition a photo after placing it.

With programs that don't offer layer effects, such as Corel Paint Shop Pro XI, it's not as easy to create the shiny look, but you could try adding your photo to each face and then applying a suitable special effect filter.

**1** Run Photoshop Elements 5 and select Edit, Enhance Photos. When the program opens, go the File menu and choose New, Blank File, or press Ctrl-N. The New dialog box appears. From the Preset list at the top, choose A4. This gives you a document measuring 210x297mm at a resolution of 300 pixels per inch. Background Contents should be set to White. Click OK.

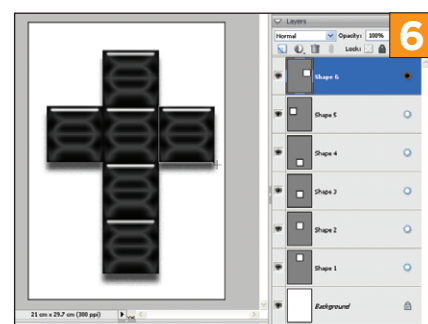
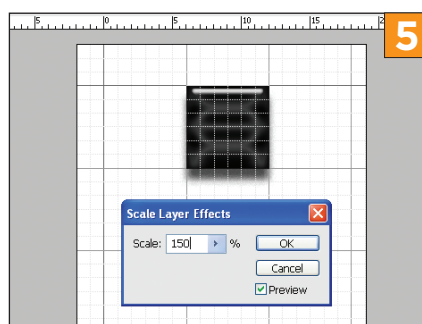
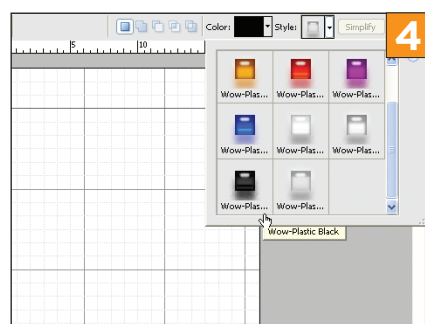
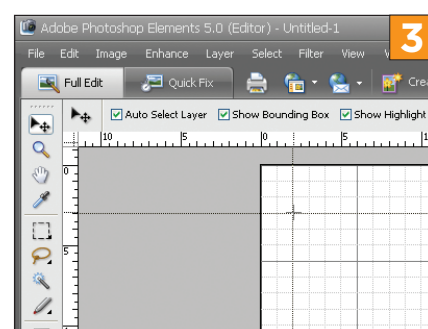
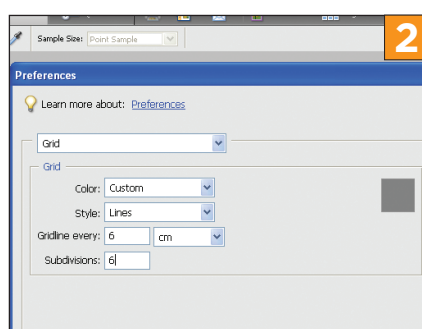
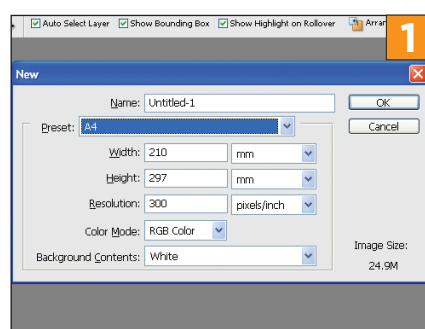
**2** You have a blank page on which to create your cube. The surface of any three-dimensional form folded out flat is known as a net. It's simple to draw the net of a cube, but all the parts need to line up precisely. You can save time by getting help from your software. From Elements' Edit menu, choose Preferences, Grid. Color should be set to anything except white (the square swatch on the right confirms the current setting) and Style to Lines. Using the boxes below, choose to display a gridline every six centimetres, with six subdivisions. Click OK.

**3** If you can't see the grid yet, choose Grid from the View menu. On the same menu, choose Snap To and make sure Grid is selected. You'll also need to show rulers, which you can select from the View menu or by pressing Shift-Ctrl-R. On your blank A4 page, you should see a grid containing 15 large (6cm) squares – three across and five down – divided into smaller

(1cm) squares. To place your net in the middle of the page, you need to shift this grid. Click on the square at the top left where the two ruler bars meet – it's marked with crossing dotted lines – and drag on to the page to show horizontal and vertical crosshairs. Drag these to a position two grid squares across and three down from the top left corner. The cursor snaps to your grid squares. Release the crosshairs here to reposition the grid.

**4** Draw the faces of your cube as vector shapes. Click on the fourth from last icon in the toolbox down the left side, or press U, to activate the shape tools. Choose the one you want from the icons in the Options bar at the top – in this case, Rectangle. Further along this toolbar, you can set the Color of the shape you'll draw, which doesn't matter as it will be overridden by the Style. By default this is None, indicated by a diagonal red line. Click on this to show a palette of Layer Styles. Click on the triangle at the top right of the palette to bring up a menu of style categories and select Wow Plastic. From the swatches, scroll down and choose Wow Plastic Black. This gives the strongest shading effect.

**5** Once your shape-drawing tool is set up, click at the top left of the large (6cm) grid square in the middle of the top row and drag



down to its bottom right to draw a square shape. The shape takes on the shiny black plastic style you selected. At this size, you'll see the effect is subtle, with a narrow highlight across the top. To make it slightly more dramatic, go to Layer, Layer Style, Scale Effects. In the dialog box that appears, set Scale to 150% – or whatever size you prefer – and click OK. This change will also apply to the shapes you draw next.

**6** Draw another square immediately below, then two more to make a vertical line of four, and finally draw squares either side of the second square from the top to form a cross, as seen in the screenshot. In the Layers palette on the right (choose its name from the Window menu if you don't see it), you'll see each shape has its own layer. You can turn off the grid again by selecting Grid from the View menu as before.

**7** Imagine how your finished net will fold up. Taking the central square (where the arms of the cross join) as the base of the cube, the four squares around it will fold up to form the sides. The lowest square, attached to the last of these, will fold over to make the top of the cube.

Consider the appearance of the shiny plastic effect on the cube's faces. As drawn, each square has a highlight on its top edge. After folding, however, these won't all be at the top. The squares at the left and right of the net will end up with their highlights at the sides, and the third square down will have its highlight at the bottom. To correct this, go to the Layers palette and click on the layer containing the left square. If you drew your squares in the order we described, it will be Shape 5. Then go to the Layer menu and choose Layer Style, Style Settings. In the dialog box that appears, change the Lighting Angle to 180° to move the highlight to the left side. This is furthest from the central square – the cube's base – and so will be uppermost when the cube is folded up.

**8** In the Layers palette, click on the layer for the square on the right (Shape 6 in our

example) and change its Lighting Angle to 0° to place its highlight on the right. Then click on the layer for the third square down (Shape 3) and make its Lighting Angle 270°, or -90°, so its highlight is at the bottom. The base doesn't need a highlight, so click on its layer (Shape 2) and, in Style Settings, reduce the Bevel setting to zero. The top of the cube should be lighter all over so click on its layer (Shape 4) and, using the Style picker in the Options toolbar as before, change it to Wow Plastic White.

**9** Now you can add your photos. Choose Open from the File menu, or press Ctrl-O, and browse for each image file you want to use. You'll need five for the five visible sides of the cube, excluding the base. Having opened your images, you can see their thumbnails in the Photo Bin below your artwork. If it isn't visible, open it by clicking on the symbol in the middle of the narrow bar at the bottom of the window, or select Photo Bin from the Window menu. Choose a face for your cube in the Layers palette; we started with the top square (Shape 1). Then add a photo by clicking on its thumbnail and dragging it on to the cube net artwork.

**10** To position your photo, use the Move tool. To do this, click on the first icon in the toolbox on the left, or press V. Click on the photo you've placed on your net and drag it over the square you just selected; its layer should be immediately below the photo in the Layers palette. Use the corner handles to resize the photo as necessary, clicking the green tick symbol to confirm your changes. Then go to the Layer menu and choose Group With Previous, or press Ctrl-G. The photo is cropped within the square. The rest of the image still exists, however, and you can continue to resize and reposition it.

**11** Add photos to the other faces in the same way. Don't forget to rotate the images so they'll be the right way up on your finished cube. To rotate, move the cursor slightly off any corner

## LAYERS AT A GLANCE

- Most image editors support layers. Think of them as a stack of transparent sheets, each with an image or shape printed on it. The layer below shows through any areas that are left transparent. Layers can be used for special effects or just to keep parts of your artwork separate.
- In Photoshop Elements, you can group layers. Wherever the bottom layer in a group is transparent, nothing in the layers above is visible. So if the bottom layer is a shape, and an image layer above it is grouped with it, the image will only be seen within the shape, even if it overlaps.
- You can also apply Layer Styles, preset effects that are governed by whatever isn't transparent in the layer. So if you draw a shape in a layer then apply a plastic button effect, you'll get a plastic button of that shape.

handle to show the Rotate symbol, then click and drag to turn the photo around, holding the Shift key to work in 90° steps. It doesn't matter which way up the image is on the top face. You should end up with something like our example.

**12** To make your cube easier to construct, add tabs to the faces. Show the grid again, and use the Rectangle Shape tool as before to draw tabs on alternate edges, as seen here. It doesn't matter what colour or style they are, as they won't be seen. Print it at full size on A4 photo paper – use the thickest kind that's compatible with your printer – and cut around the outline. Carefully fold and crease all the tabs inwards, then dab them with glue a stick. Fold up your cube and hold the edges in place until the glue has dried.

Don't forget to save your work. Choose Save from the File menu and select Photoshop .psd format to keep all the layers intact for future editing. When you want to make another photo cube, delete each photo in turn; click on its layer in the Layers palette then click on the dustbin icon at the top. Add a new one using the same method as before. **ES**

